

# ***Portland Harbor and the Willamette River***

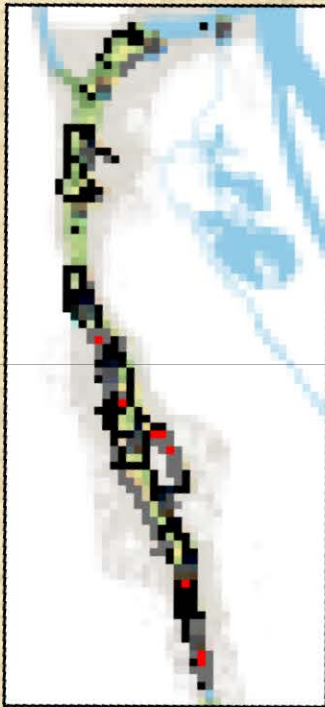
**There are many interrelated efforts to clean up, protect and restore the Willamette River.**

**The focus of today's meeting will be on the Superfund Cleanup. Specifically :**

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# Portland Harbor named Superfund Site in 2000

**US EPA:  
River &  
Sediment  
Cleanup**



**Sampling, Testing &  
Analysis**



**Oregon DEQ:  
Upland Cleanup  
& Source  
Control**



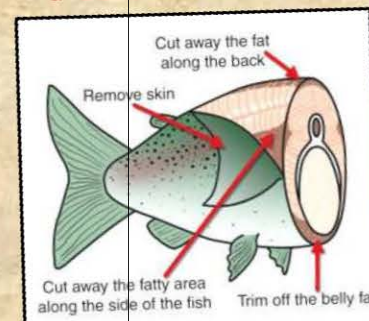
**Early  
Cleanup  
Actions**



**Citizen  
Advisory  
Group (CAG)**



**Fish  
Advisories**





# What's happened so far?

2000 - Present

**Portland Harbor named Superfund Site - 2000**

Oregon DEQ leads Uplands cleanup

US EPA leads River & Sediment cleanup

**Public and Industry get Involved**

Citizen Advisory Group Formed

Lower Willamette Group Formed

**Sampling, Testing & Analysis**

Consultants paid for by LWG and supervised by EPA

**Upland Source Control**

Prevent re-contamination of the river from upland sources

**Early Cleanup Actions**

McCormack & Baxter, Terminal 4, GASCO, Arkema



# Portland Harbor Superfund Milestones



We are here

2000 - - - - > 2010

2011

2012

2013

**2000-11**

Superfund  
Listing,  
Research,  
Sampling,  
Analysis,  
Early  
Actions,  
Uplands  
Cleanup

Remedial  
Investigation  
(RI) and Risk  
Assessment

***What and  
where are  
the risks?***

Draft  
Feasibility  
Study (FS)

***What are the  
cleanup  
options?***

EPA's  
Proposed  
Clean-up Plan

***EPA's  
Proposal for  
formal public  
comment***

EPA's Record  
of Decision  
(ROD)

***EPA's Final  
Decision***

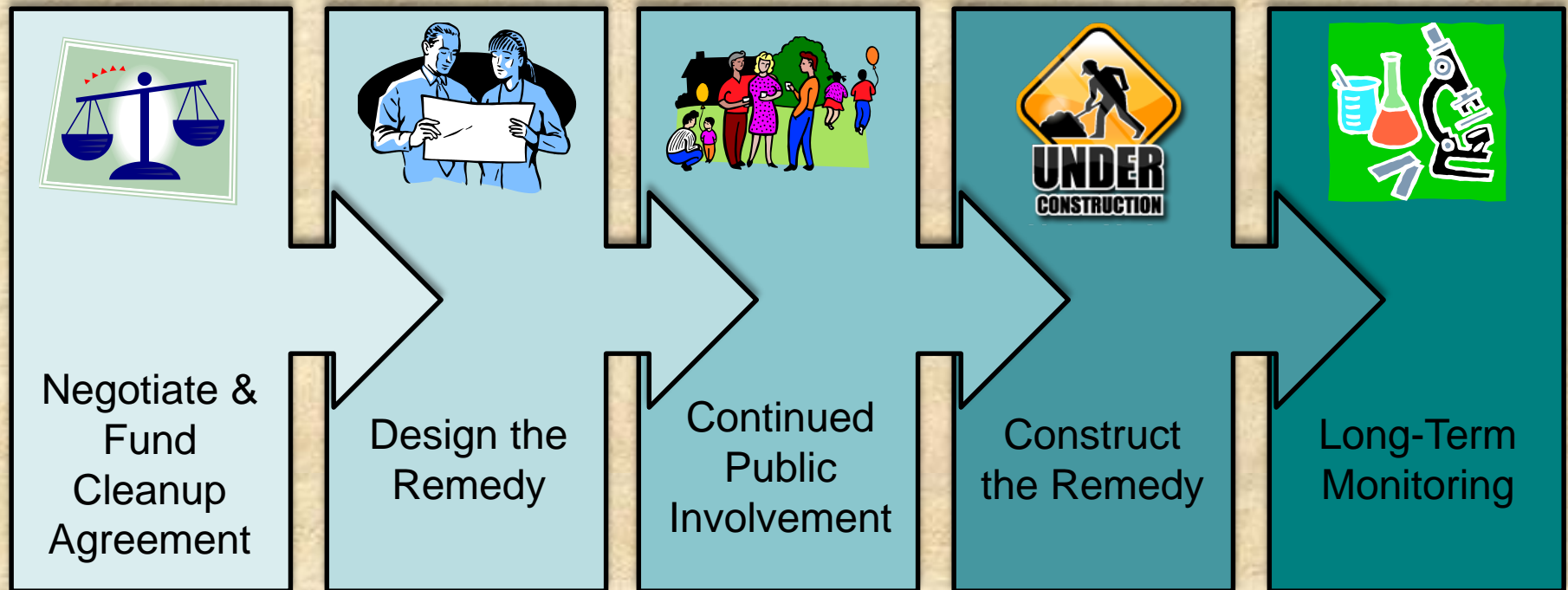
- **Public presentations on Draft RI/FS**
- **Opportunities to hear public reaction to Draft RI/FS**
- EPA comments & revisions to RI/FS

- Tribal Consultations
- **Formal Public Comment**
- State Concurrence

Harbor  
Cleanup

# After the Record of Decision

2013 and beyond



Continuing Upland Source Control and Monitoring



# The Draft Feasibility Study (FS)

The Draft FS (to be released in late 2011) evaluates the effectiveness, feasibility and cost of a wide range of cleanup alternatives that EPA will consider when developing EPA's Proposed Cleanup Plan, including:

- dredging,
- removal to landfills,
- confined disposal facilities (CDFs)
- on-site treatment,
- innovative technologies,
- capping,
- monitored natural recovery,

# **EPA Superfund clean-up decisions are based on 9 formal criteria:**

## **Threshold Factors**

- overall protection of human health and the environment;
- compliance with ARARs (applicable state or federal requirements);

## **Primary Balancing Factors**

- long-term effectiveness and permanence;
- reduction of toxicity, mobility, or volume;
- short-term effectiveness;
- implementability;
- cost;

## **Modifying Considerations**

- state acceptance; and
- community acceptance.